

Art Unit: 1796

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the Specification:

- On page 1, replace the title,

“EPOXY RESIN COMPOSITION FOR ENCAPSULATING SEMICONDUCTOR AND SEMICONDUCTOR DEVICE”

with the following new title:

--EPOXY RESIN COMPOSITION FOR THE ENCAPSULATION OF SEMICONDUCTORS AND SEMICONDUCTOR DEVICES--

REASONS FOR ALLOWANCE

Pending Claims

Claims 1-8 are pending.

Response to Amendment

1. The rejection of claims 1-8 under 35 U.S.C. 103(a) as being unpatentable over Matsuo (JP 2002-161193) in view of Shimizu et al. (US Pat. No. 5,919,844) has been overcome by amendment.
2. The rejection of claims 1-8 under 35 U.S.C. 103(a) as being unpatentable over Matsuo (JP 2002-161193) in view of Maeda et al. (US Pat. No. 6,190,787) has been overcome by amendment.
3. The rejection of claims 1-8 under 35 U.S.C. 103(a) as being unpatentable over Hirokane (JP 2002-080695) in view of Shimizu et al. (US Pat. No. 5,919,844) has been overcome by amendment.
4. The rejection of claims 1-8 under 35 U.S.C. 103(a) as being unpatentable over Hirokane (JP 2002-080695) in view of Maeda et al. (US Pat. No. 6,190,787) has been overcome by amendment.
5. The rejection of claims 1-8 under 35 U.S.C. 103(a) as being unpatentable over Toyosawa (JP 2002-212393) in view of Shimizu et al. (US Pat. No. 5,919,844) has been overcome by amendment.

Art Unit: 1796

6. The rejection of claims 1-8 under 35 U.S.C. 103(a) as being unpatentable over Toyosawa (JP 2002-212393) in view of Maeda et al. (US Pat. No. 6,190,787) has been overcome by amendment.

Allowable Subject Matter

7. Claims 1-8 are allowed.

8. The following is an examiner's statement of reasons for allowance:

The experimental data set forth in Table 1 of the specification demonstrates unexpected results when a combination of (E) and (F):

- (E) a glycerol tri-fatty acid produced by dehydration condensation reaction of glycerol and a saturated fatty acid with a carbon atom content of 24-36, and
- (F) a hydrotalcite compound,

is used in concert with components (A)-(D):

- (A) an epoxy compound,
- (B) a phenol resin,
- (C) an inorganic filler, and
- (D) a curing accelerator;

with the following set of conditions:

- wherein the inorganic filler (C) is provided in an amount of 80-94 wt%, based on the overall weight of the composition;
- wherein the glycerol tri-fatty acid ester (E) is provided in an amount of 0.02-1 wt%, based on the overall weight of the composition;

Art Unit: 1796

- wherein the hydrotalcite compound (F) is provided in an amount of 0.01-5 wt%, based on the overall weight of the composition, has an average particle diameter of 0.01-5 μm , and has a specific surface area 50 m^2/g or less.

Comparative Example 1 corresponds to the closest prior art (*each of the primary references cited above*), wherein the closest prior art feature components (A), (B), (C), (D), and (E). Examples 1-7, all featuring components (A), (B), (C), (D), (E), and (F), feature an unexpected improvement over Comparative Example 1. Specifically, Examples 1-7 show considerable improvement in *PKG appearance failure*, in concert with excellent mold release-ability.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Art Unit: 1796

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Feely whose telephone number is (571)272-1086. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J Feely/
Primary Examiner, Art Unit 1796

January 8, 2010